



European  
Commission

ICT FOR ROADS

# BIM – V-Con – PCP

## Building Information Modelling Virtual Construction for Roads Pre-Commercial Procurement

“To standardise and implement Building Information Modelling (BIM) technology in the sector of road construction and road management to improve the efficiency and effectiveness of National Road Authorities by improving data exchange in the civil infrastructure sector.”

### At a Glance

#### Project acronym:

V-Con – A collaboration programme between Rijkswaterstaat, Trafikverket, CSTB, and TNO. Officially started in October 2012, it aims to break out of a circle of ICT-standstill by defining a first standard, procuring the necessary software and launch a PCP for BIM-server and software tooling.

#### Project type:

Integrated Project

#### Programme:

7<sup>th</sup> EU Framework Programme

#### Project coordinator:

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#### Project partners:

Trafikverket (National Swedish Road &  
Rail Authority)  
CSTB (French National Research Institute)  
TNO (Dutch National Research Institute)

**Start date:** Oct 2012

**End date:** Oct 2016

**Total cost:** €3.5 million

**EU funding:** €2.1 million

#### Project website:

[www.rws.nl/v-con](http://www.rws.nl/v-con)

### Current situation

In the current situation there is a lack of standardised information exchange and sharing over the civil infrastructure sector. Several developments can be observed, but no comprehensive, generally accepted standard is directly available. Therefore, intention is to develop (part of the) required international open information standard, and procuring the required, compliant software tools. This will stimulate others in the sector to follow.

Within V-Con, a PCP approach has been chosen, challenging the market place to innovate in competition. PCP comprises 3 phases: solution design, prototyping and pre-production testing.

### Objectives

This leads to two primary objectives. The first is to establish a draft version of a standardised information and data exchange structure. The second is to procure and test software systems in a PCP that comply with this structure. The results will be embedded in the procurement of two large infra projects, one in the Netherlands and one in Sweden. The result will be a draft version of a standard that will be used in the software that will be procured in the PCP part of the project.

## Description of Work

This project consists of 5 work packages.

### WP1: Management

To ensure sound, efficient, and transparent coordination and management of the project over the technical, administrative, legal and financial aspects, which are responsible for high-quality deliverables, productive collaboration between partners, and clear reporting throughout the project.

### WP2: Support PCP process

To specify server software and interfaces with end-user software, design and launch of the call, evaluation of the tenders, and coordination of the PCP process (WP 4).

### WP3: Standardisation

Inventory of existing info exchange standards, to define and agree upon a Road Information Structure, to extend IFC for roads, and to develop National Object Type Libraries for highways.

### WP4: Prototype development and pilot implementation

To explore solutions, prototyping, and testing in order to develop new ICT solutions procured through the joint PCP call for tender.

### WP5: Dissemination.

To disseminate the results of V-Con to the road infrastructure sector and appropriate networks of ICT companies (software vendors/developers) and BIM specialists via website, network activities, and V-Con conferences.

## Expected results

1. Information exchange standard for roads (1<sup>st</sup> draft);
2. Object type library for roads (1<sup>st</sup> draft);
3. Joint PCP tender resulting in BIM-server for roads and software tooling.

V-Con aims at enabling national road authorities to introduce software tools for exchanging/sharing comprehensive road (highway) information with commercial parties in the sector and applying them in their life-cycle and supply-chain processes.

## For further information:

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